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10/578,536	03/21/2007	Sharon M. Wahl	64868(47992)	9065
46037 7590 05/06/2010 EDWARDS ANGELL PALMER & DODGE LLP PO BOX 55874 BOSTON, MA 02205				
EXAMINER				
WOLLENBERGER, LOUIS V				
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1635				
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/578,536

**Applicant(s)**

WAHL ET AL.

**Examiner**

Louis Wollenberger

**Art Unit**

1635

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 February 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

## **DETAILED ACTION**

### ***Status of Application/Amendment/Claims***

Applicant's response filed 2/26/2010 has been considered. Rejections and/or objections not reiterated from the previous office action mailed 12/2/2009 are hereby withdrawn. The following rejections and/or objections are either newly applied or are reiterated and are the only rejections and/or objections presently applied to the instant application.

With entry of the amendment filed on 2/26/2010, claims 1, 2, and 13 are pending and examined herein.

### ***Election/Restrictions***

The previous Action acknowledged Applicant's election of Group III, drawn to a method of attenuating infection or transmission of an immunodeficiency virus via a p21 inhibitor that is 2-cyano-3,12-dioxooleana-1,9-dein-28-oic acid. See Applicant's reply filed on 8/25/2009. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### ***Specification***

The amendment to the specification filed 2/26/2010 is objected to under 37 CFR 1.121(a) because the replacement paragraph does not include markings to show all the changes relative to the previous version of the paragraph. The proposed change is acceptable; however, the amendment omits the underline necessary to show the added text relative to the previous version of the paragraph. Appropriate correction is required.

***Claim Rejections - 35 USC § 112, first paragraph (enablement)—maintained***

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1, 2, and 13 remain rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for methods of reducing HIV replication and levels in cells in culture and for reducing viral replication and levels in an individual, does not reasonably provide enablement for methods of attenuating the transmission or infection of HIV using any CDDO derivative, or for methods of attenuating the transmission or infection of any known or yet to be identified immunodeficiency virus using CDDO or any derivative thereof, or for methods of treating AIDS in an individual.

The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

Factors to be considered in a determination of lack of enablement include, but are not limited to:

- (A) The breadth of the claims;
- (B) The nature of the invention;
- (C) The state of the prior art;
- (D) The level of one of ordinary skill;
- (E) The level of predictability in the art;
- (F) The amount of direction provided by the inventor;
- (G) The existence of working examples; and

(H) The quantity of experimentation needed to make or use the invention based on the content of the disclosure.

*In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988)

The prior and post-filing art indicates AIDS or acquired immunodeficiency syndrome involves a multitude of abnormal cellular disorders and physiological changes, ranging from opportunistic infections to cancer, that may vary from individual to individual. While the instant application reasonably shows the administration to cells of CDDO before or at the time of infection by HIV reduces HIV replication and levels of detectable virus in cell culture, and while one of skill would reasonably infer these results could be extrapolated to cells in vivo, the specification does not show or reasonably suggest CDDO may be used to treat early or acute stage AIDS, as the term may be understood in the art, or any of the AIDS diseases directly resulting from HIV infection. Rather, the specification more narrowly shows how to use CDDO to inhibit HIV replication in a cell in vitro or in vivo, which may reasonably be construed as a treatment for persons infected with HIV, but not necessarily as a treatment for persons suffering from AIDS, including advance AIDS. The application does not show treatment or prevention of any such disorder.

Additionally, whereas instant claim 1 is drawn to the inhibition of any immunodeficiency virus, the instant specification provides direction and guidance relating to one type of virus, HIV, and does not show or describe any other type of immunodeficiency virus which may also be susceptible to CDDO inhibition according the mechanism hypothesized: p21 inhibition. While retroviruses having life cycles and depending on proteins common to those in HIV might

reasonably be enabled within the scope of the method, the Examiner finds no evidence in the specification or prior art to support the extrapolation to all known and yet to be identified immunodeficiency viruses. Rather, the direction and guidance is limited to HIV. The application to all other immunodeficiency viruses, whatever those may be, would appear speculative at best.

Additionally, while Applicant has shown that CDDO is biologically active against HIV and effectively reduce HIV replication, Applicant has not provide the direction or assurance necessary to enable one of skill to practice the methods using any CDDO derivative without having to resort to *de novo* trial and error experimentation to identify which, if any, CDDO derivative may be used as now claimed. Such experimentation, in the absence of any evidence of ever reaching a successful conclusion, is considered to be undue.

It is reasonable therefore to question whether sufficient direction and guidance has been provided to enable one of skill to practice the claims as broadly as now claimed.

Considering the breadth of the claims, the state of the art at the time of filing, the level of unpredictability in the art, and the limited guidance and working examples provided by the instant application, the Examiner submits that the skilled artisan would be required to conduct undue, trial and error experimentation to practice the claimed invention commensurate with the claims scope.

Accordingly, the instant claims are rejected for failing to comply with the enablement requirement.

***Response to Remarks filed 2/26/2010***

Applicant does not traverse the rejection of the claims for lack of enablement, as required by 37 CFR 1.111(b) and (c). The rejection is still considered proper and is maintained therefor for the reasons given above.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(c) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1 and 2 are rejected under 35 U.S.C. 102(a) as being anticipated by Place et al. (July 2003) “The novel synthetic triterpenoid, CDDO-imidazolide, inhibits inflammatory response and tumor growth in vivo” *Clin. Cancer. Res.* 9(7): 2798-806.

***Claim interpretation:***

Claims 1 and 2 embrace a method of providing CDDO to any human cell in an amount sufficient to cause attenuation of immunodeficiency virus, such as HIV. The claims do not require the cell or individual containing the cell be infected with HIV. Indeed, as now written the claims read on any method of administering CDDO to any cell in vitro or in vivo for any purpose. The preamble of claim 1 is given no patentable weight, since the body of the claim fully and intrinsically sets forth all of the limitations of the claimed invention, and the preamble

merely states the purpose or intended use of the invention (MPEP 2111.02). The intended purpose recited in the preamble is an effect inherent to the administration of CDDO to an individual or subject, as a compound and its properties are inseparable.

Claim 13 (not included in this rejection) is construed as being limited to individuals having AIDS.

Place et al. disclosed a method of administering CDDO to human cancer cells in culture (Figs. 1-6 and see Abstract, Results, and Discussion at pages 2798-2804). The amount of CDDO administered ranged from 100 picomolar to 1 micromolar, and from 3 nanomolar to 300 nanomolar. The administration of CDDO compounds is shown to suppress the proliferation of the human cancer cells. As the specification teaches that 0.1  $\mu\text{M}$  CDDO is sufficient to produce effects similar to what is now claimed (Fig. 5, page 10 and 63), the amounts disclosed by Place et al. would appear to meet this limitation.

Accordingly, Place et al. disclosed a method within the scope of what is now claimed.

***Response to Arguments***

Applicant's remarks filed 2/26/2010, traversing the rejection of claims 1 and 2 under 35 USC 102(a) over Place et al., have been fully considered but are not persuasive.

The amendment to the claims, removing the term "derivative," are noted. However, Place et al. taught the provision of CDDO to human cells in culture. Note the interpretation of the claims, above. The claims do not require administration of CDDO to cells infected with HIV or any other virus. Rather, as written, the claims read on methods of providing CDDO to cells prior to exposure to or infection by HIV. Accordingly, the method shown by Place et al. is indistinguishable from that now claimed.



\*\*\*

Claims 1, 2, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by Salcedo et al. (WO 2004/016753).

The claims do not exclude administration of compositions comprising CDDO or combination therapies comprising the use of CDDO in combination with any other anti-HIV agent.

Salcedo et al. disclosed a method for treating HIV and AIDS in an individual comprising administering antibodies that bind TRAIL receptor (TR4) together with 2-cyano-3,12-dioxooleana-1,9-dien-28-oic acid (CDDO) (paragraphs 477, 402, 404, 429).

Accordingly, Salcedo et al. disclosed a method within the scope of what is now claimed.

***Response to Arguments***

Applicant's remarks filed 2/26/2010, traversing the rejection of claims 1, 2, and 13 under 35 USC 102(e) over Salcedo et al., have been fully considered but are not persuasive.

Applicant argues Salcedo et al. is not enabling for the method now claimed because Salcedo et al. does not teach administration of CDDO to provide an attenuation of at least about 50% in transmission or infection of virus relative to an untreated cell.

Applicant's point is noted. However, Applicant provides no evidence or convincing reason why one of skill, in applying the combination method taught by Salcedo et al., would not refer to the body of knowledge in the prior art regarding dosages of CDDO for inhibition of histone deacetylase in cells and subjects, and, in doing so, why one of skill would not use an amount of CDDO that would achieve the attenuation required by the claims. The fact that Salcedo et al. does not expressly provide details regarding the administration of CDDO in

combination with antibody is not necessarily evidence of non-enablement, since one of skill would refer to the body of knowledge in the prior art when applying the method. The specification need not disclose what is well-known to those skilled in the art and preferably omits that which is well-known to those skilled and already available to the public (MPEP 2164.05(a)). The Examiner notes, by way of examine in addressing applicant's argument of non-enablement, US 20030119732, entitled "CDDO-compounds and combination therapies thereof" had disclosed dosing and scheduling of CDDO for administration to cells and subjects, which one of skill might reasonably have consulted for guidance. See also Place et al., cited above. Even if such disclosures did not distinctly address dosages for treating HIV, one of skill would reasonably begin with dosages in ranges known to be tolerated by animals and human patients and make adjustments as necessary to achieve the result required by Salcedo et al. Such measures and adaptations are considered well within the level of skill in the therapeutic arts. Finally, it is noted that with regard to in vivo embodiments embraced by the claims, the disclosure of Salcedo is no less enabling than that of the instant application for achieving the same results.

Further, it is reasonable to assume one of skill practicing the method of Salcedo et al. would implement the method with the goal of maximizing the inhibition of HIV infection and propagation and achieving the most efficacious treatment for the AIDS patient. In rebutting the rejection, Applicant provides no evidence one of skill practicing the method of Salcedo et al. in view of the body of knowledge in the prior art regarding the use of CDDO in vivo and in vitro would not achieve an attenuation of at least about 50% in said transmission or infection of said virus relative to an untreated cell. From a practical standpoint, the Patent Office is not equipped

to manufacture products by the myriad of processes put before it and then obtain prior art products and make physical comparisons therewith." *In re Brown*, 459 F.2d 531, 535, 173 USPQ 685, 688 (CCPA 1972).

"In determining that quantum of prior art disclosure which is necessary to declare an applicant's invention 'not novel' or 'anticipated' within section 102, the stated test is whether a reference contains an 'enabling disclosure'... ." *In re Hoeksema*, 399 F.2d 269, 158 USPQ 596 (CCPA 1968). The disclosure in an assertedly anticipating reference must provide an enabling disclosure of the desired subject matter; mere naming or description of the subject matter is insufficient, if it cannot be produced without undue experimentation. *Elan Pharm., Inc. v. Mayo Found. For Med. Educ. & Research*, 346 F.3d 1051, 1054, 68 USPQ2d 1373, 1376 (Fed. Cir. 2003). When the reference relied on expressly anticipates or makes obvious all of the elements of the claimed invention, the reference is presumed to be operable. Once such a reference is found, the burden is on applicant to provide facts rebutting the presumption of operability. *In re Sasse*, 629 F.2d 675, 207 USPQ 107 (CCPA 1980). See also MPEP § 716.07. A prior art reference provides an enabling disclosure and thus anticipates a claimed invention if the reference describes the claimed invention in sufficient detail to enable a person of ordinary skill in the art to carry out the claimed invention; "proof of efficacy is not required for a prior art reference to be enabling for purposes of anticipation." *Impax Labs. Inc. v. Aventis Pharm. Inc.*, 468 F.3d 1366, 1383, 81 USPQ2d 1001, 1013 (Fed. Cir. 2006). See also MPEP § 2122.

The Examiner submits the disclosure of Salcedo et al. is prima facie enabling absent convincing evidence to the contrary. Because the reference teaches the method in as much detail as now claimed it also anticipates the claimed method. The fact that the method of Salcedo et al.

uses antibodies in combination with CDDO is not germane since the instantly claimed method embraces such combinations.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

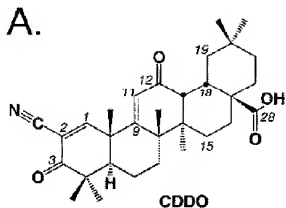
1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

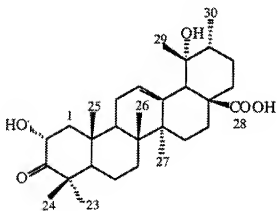
Claims 1, 2, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Xu et al. (US Patent 5,916,919) "Retrovirus protease inhibitors" and Salcedo et al. (WO 2004/016753) "Antibodies that immunospecifically bind to TRAIL receptors," the combination in view of Nasti et al. (1997) "Malignant tumors and AIDS" *Biomed. Pharmacother.* 51:243-251.

The prior art had recognized that CDDO, or 2-cyano-3,12-dioxoolean-1,9-dien-28-oic acid, belonged to a class of compounds known as triterpenes or triterpenoids. See pages 62-63 of the specification, citing Wang et al.

Xu et al. taught that triterpenes can effectively inhibit HIV infection. Specifically, Xu et al. claimed and disclosed a method of treating HIV infection comprising administering a triterpene compound, including any of those defined by Formula I (Fig. 11) or any of those described at columns 3-6. See also claims 1-6. Xu et al. further taught that included within their invention are modified derivatives of the compounds of Formula I (col. 3, lines 30-35). One of skill would instantly recognize the method is intended for use in any HIV infected individual, including one with AIDS. It is further noted Xu et al. had, as a whole, taught that several different types of triterpenes inhibit retroviral protease, including the HIV protease, and that these compounds are therefore useful for treating HIV infection. See, for example, Summary of Invention, beginning at column 3, and Detailed Description of the Invention, beginning at column 4. The triterpenes disclosed by Xu et al. are structurally related to CDDO as shown below.



Sample triterpene disclosed by Xu et al.:



Xu et al. does not teach CDDO in particular.

Salcedo et al. is relied on for the reasons given above in the rejection of claims 1, 2, and 13 under 35 USC 102. As explained above, Salcedo et al. had expressly suggested using a combination of CDDO and TRAIL receptor immunospecific antibodies for treating HIV infection and AIDS.

Accordingly, in view of Xu et al. and Salcedo et al. as a whole, one of skill would reasonably have concluded at the time of invention that CDDO, as well as other triterpenes, may be used alone or in combination with other therapeutic agents (such as antibodies) in the treatment of HIV infection in an individual, including an individual suffering from AIDS.

Additionally, and apart from the reasoning above, it is further noted Salcedo et al. had taught at paragraph 481 that antibodies of their invention may be administered in combination with one or more therapeutic agents, including CDDO (paragraph 476), in the treatment, prevention, amelioration and/or cure of Kaposi's sarcoma (see also paragraph 384).

The prior art had taught that, in western countries, Kaposi's sarcoma is over 2,000 times more common in HIV-infected individuals than in the general population, and that in certain AIDS populations, the prevalence of KS may be 21%. See, for example, Nasti et al. (1997) "Malignant tumors and AIDS" *Biomed. Pharmacother.* 51:243-251.

Accordingly, in view of Salcedo et al. one of skill would have had reason to apply the antibody/CDDO combination therapy for to treat any of the cancers specifically recommended by Salcedo et al., including Kaposi's sarcoma. Given that Salcedo et al. make no exclusions as to the target population having KS, one of skill would reasonably have concluded this therapy may be used in any patient having KS, including HIV-infected patients suffering from KS. As a result one of skill following the suggestion of Salcedo et al., would have had reason to use the method in HIV-infected patients, including AIDS patients, reasonably predicting the therapy would be effective for the treatment of KS in said patients, as taught by Salcedo et al.

Consequently, for this reason, too, the prior art had suggested a method within the scope of what is now claimed.

***Response to Arguments***

Applicant's remarks filed 2/26/2010, traversing the rejection of claims 1, 2, and 13 as being unpatentable under 35 USC 103 have been fully considered but are not persuasive.

In the first, the rejection states it would have been prima facie obvious to use CDDO, as well as other triterpenes, alone or in combination with other therapeutic agents (such as antibodies) to treat HIV infection in an individual, including an individual suffering from AIDS. Applicant argues the claims are directed to the administration of CDDO and that the prior art provides no reason to expect the use of CDDO without antibody would be effective. This argument is not persuasive because the claims are not limited to the use of CDDO alone but embrace any combination therapy invoking CDDO. Further, Applicant provides no evidence to show the combination method disclosed by Salcedo et al. or the use of CDDO alone, which the Examiner maintains is reasonably suggested by Xu et al. and Salcedo et al. as a whole, would not attenuate HIV transmission or infection by "at least about 50%." See response to Salcedo et al. above.

Applicant disparages Xu et al. as uninformative because of the number of different compounds disclosed. This argument is insufficient because each compound is disclosed and could readily be made and used by the ordinary artisan. Further, in the context of the claims as now written, the point is not that Xu et al. disclosed many different triterpenes that could be used to inhibit HIV, but that one of skill would reasonably have inferred from Xu et al., teaching that triterpenes and triterpene derivatives can inhibit HIV, taken with the express recommendation of Salcedo et al. to use CDDO in a method for inhibiting HIV, that triterpenes, such as CDDO, were as a class effective for inhibiting retroviral infections including HIV. While the number of



triterpenes available for such therapy might have been large, the hypothetical person of ordinary skill in the art is, nevertheless, charged with the knowledge of each option disclosed in the prior art. The full structure of each available option (i.e., each triterpene) for treating HIV and AIDS was disclosed by the prior art in as much detail as necessary to allow one of skill to select, make, and use each triterpene. The chemical composition of CDDO, one member of the triterpene or triterpenoid class recommended for inhibiting HIV and treating AIDS, was known in the prior art, as evidenced by Salcedo et al.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Louis Wollenberger whose telephone number is (571)272-8144. The examiner can normally be reached on M-F, 8 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fereydoun Sajjadi can be reached on 571-272-3311. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Louis Wollenberger/  
Primary Examiner, Art Unit 1635  
May 3, 2010